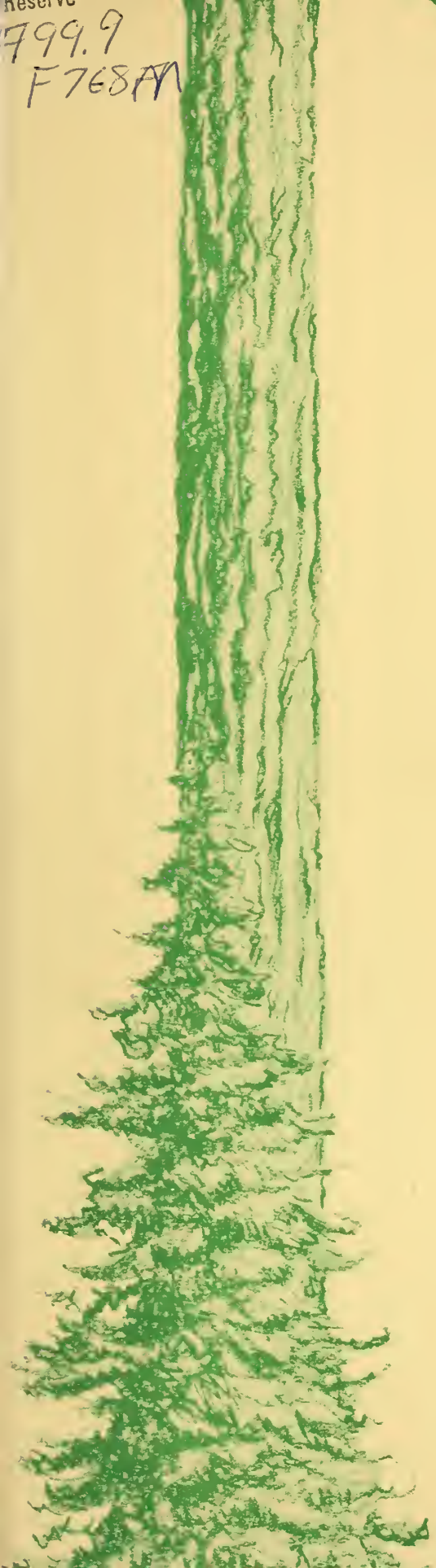


"Region Six in Fifty Six"

Pacific Northwest Region

Annual Report

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

REGIONAL OFFICE DIVISIONS AND FORESTS
R-6

Regional Forester — J. Herbert Stone — Box 4137, Portland 8, Oregon

Division	Chief
Engineering	R. F. Grefe
Fire Control	Kermit W. Linstedt
Fiscal Control	Reed H. Jensen
Information & Education	L. G. Jolley
Operation	P.F.W. Prater
Personnel Management	Earl D. Sandvig
Recreation & Lands	Frank B. Folsom
State & Private Forestry	Thomas H. Burgess
Timber Management	Walter H. Lund
Wildlife & Range Management	Avon Denham

Forest	Supervisor	City
Deschutes	James A. Egan	Bend, Oregon
Fremont	John E. McDonald	Lakeview, Oregon
Gifford Pinchot	Homer J. Hixon	Vancouver, Washington
Malheur	J. Malcolm Loring	John Day, Oregon
Mt. Baker	Harold C. Chriswell	Bellingham, Washington
Mt. Hood	Lloyd R. Olson	Portland, Oregon
Ochoco	Cleon L. Clark	Prineville, Oregon
Okanogan	Chester H. Bennett	Okanogan, Washington
Olympic	Mason B. Bruce	Olympia, Washington
Rogue River	Jack H. Wood	Medford, Oregon
Siskiyou	H. C. Obye	Grants Pass, Oregon
Siuslaw	Rex W. Wakefield	Corvallis, Oregon
Snoqualmie	Laurence O. Barrett	Seattle, Washington
Umatilla	Charles M. Rector	Pendleton, Oregon
Umpqua	Vondis E. Miller	Roseburg, Oregon
Wallowa-Whitman	Harold S. Coons	Baker, Oregon
Wenatchee	John K. Blair	Wenatchee, Washington
Willamette	Robert Aufderheide	Eugene, Oregon

UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

PACIFIC NORTHWEST REGION

ADDRESS REPLY TO
REGIONAL FORESTER
AND REFER TO

P.O. BOX 4137
PORTLAND 8, OREGON

I
INFORMATION
General

February 1, 1957

Dear National Forest Stockholder:

This is our fourth annual review of national forest administration and state and private forestry cooperation for the Pacific Northwest Region. Accomplishments, and some of our management problems, are discussed under headings which correspond to our administrative divisions of work.

Demands upon the resources provided by our forests have been increasing rapidly. Right now there are about 3 acres of commercial forest land for every person in the United States. By the year 2000 it has been predicted that this will shrink to about 1-3/4 acres per person, mainly because of population increase. It is clear that our over-all job continues to be to get maximum production of all resources provided by our forests. It is equally clear that this must be accomplished under the principle of multiple use. Sound land management planning will be needed to reach this objective.

Conflicts inevitably occur through requests that certain uses be given priority to accommodate the interests of one or another segment of our people. A keen public understanding of the problem of integrating uses to provide maximum benefits to all becomes increasingly important. We hope that this brief report will contribute toward that end.

Again, may we express our appreciation for the advice and cooperation many people have given us. Should you have any comments or suggestions on our 1956 Annual Report, or as to how we may be of greater service in the multiple-use management of national forest and range lands, we shall be glad to receive them.

Very truly yours,

J. Herbert Stone

J. HERBERT STONE
Regional Forester

ANNUAL REPORT
FOREST SERVICE, U. S. DEPARTMENT OF AGRICULTURE
PACIFIC NORTHWEST REGION
1956

TIMBER MANAGEMENT

Timber Sales - Calendar Year

Despite a slight slump in the lumber and plywood market, timber cut and sold remained at a high level. Timber sold amounted to 3,091,527 MBF*, compared with 2,860,450 MBF for 1955. A total of 2,734,073 MBF was cut for which $63,391,579 was paid, an average of $23.19 per MBF. In 1955 the cut amounted to 2,729,885 MBF with a value of $44,582,518. The 1956 cut was 90.5 percent of the allowable annual cut based on existing inventory data.

Planting and Stand Improvement

A total of 10,177,000 seedlings and transplants was produced in Forest Service nurseries at Wind River, Washington and Bend, Oregon for field planting throughout the region. An additional 2,048,000 seedlings were grown for national forest planting (under cooperative agreement) at the Washington State nursery. The above planting stock provided for reforestation of 22,049 acres. An additional 845 acres were directly seeded. Total area successfully reforested by planting and seeding to date in the region is 202,619 acres. Of this year's work, 21,657 acres were financed with cooperative sale-area-betterment funds and the remaining 1,237 acres with appropriated funds.

In addition to thinnings of timber stands on several national forests through commercial sale of removed trees, improvement on 24,086 acres of young forests was completed. This consisted of 6,983 acres of stand release and thinning and 17,103 acres of pruning. All of this work was financed with cooperative sale-area-betterment funds.

* MBF - thousand board feet

Insects and Diseases

Chermes. Top insect problem in the region at present is the damage being caused by a relatively new tiny insect known as "balsam woolly aphid" or Chermes. This pest has infested 355,990 acres in Oregon and Washington. Attacks have been confined so far to the true "white" firs. No known control exists. The most severe concentration is on the Gifford Pinchot forest in the St. Helens area. Plans are under way to salvage 2,135,000,000 board feet of timber from a 47,680 acre area. This is a serious threat which is being intensively studied.

Bark beetles. Western pine beetle losses were at an alltime low in 1956. Douglas-fir bark beetle infestations are at a low level. Both are a continuing problem reckoned with in all timber management plans.

Spruce budworm. No spruce budworm control project was needed in 1956 for the first time since control measures started in 1949. From 1949 to 1955 some 3,840,000 acres were aerially sprayed to control this pest which appears to be increasing slightly again in the Blue Mountains. Some additional control work may be necessary in 1958.

Blister rust. During the past season, 8,465 acres of sugar and white pine stands on two national forests -- Umpqua and Rogue River -- were treated to protect from blister rust. The Forest Service also provided technical direction and coordinated rust control work in Oregon and Washington, done by the Bureau of Land Management and the National Park Service. The Forest Service located additional rust resistant western white pine trees and collected their seed to be used to produce more resistant trees in greater quantity. Eventually we may be able to reforest large areas with rust resistant trees.

Road Rights-of-Way

Considerable progress was made in obtaining road rights-of-way to permit the construction of timber access roads. During the year action was taken on 154 right-of-way cases. Types of cases, and accomplishment, are listed in the following table:

	Number Cases
Road right-of-way easement deeds acquired	96
Road right-of-way easement deeds pending	26
Rights-of-way acquired across unpatented mining claims	5
Rights-of-way acquired across unpatented mining claims, pending	6
Cooperative road construction agreements consummated	4
Cooperative road construction agreements, pending	3
Agreements to use private roads, consummated	5
Agreements to use private roads, pending	4
Permanent rights-of-way across national forest land	5
Total number of cases	154

Sustained Yield Units

Calendar year 1956 marked the end of the first decade for the Shelton Cooperative Sustained Yield Unit. A cooperative reinventory was completed in 1955, and in 1956 a new allowable annual timber cut was computed, and revisions were made in the management plan and agreement. The revised cut is 135 million board feet, an increase of 35 million. This change is due to the addition of some 50,000 acres acquired by Simpson Logging Company, improved utilization, and the reinventory. No formal applications for cooperative or Federal sustained yield units were received during calendar year 1956.

Management Plans and Inventories

Field work was completed for reinventories of fifteen working circles during the year. This completes 37 of the 68 working circles in the region. Two other reinventories were started. More than half of the projects were done cooperatively with Forest Survey unit crews of the Pacific Northwest Forest and Range Experiment Station.

Revision of timber management plans for the forests is being pushed in an effort to keep pace with reinventories. Whenever data show that recalculation of the allowable annual cut is warranted an adjustment of the allowable annual cut is made. Region-wide the allowable annual cut has been increased 182 million board feet as the result of reinventories. This is exclusive of the Shelton Cooperative Sustained Yield Unit.

ENGINEERING

As in the past, the problem of access into our forested areas is still one of our major problems. An intensive transportation planning study for future timber access roads was made on every ranger district in the region this past year.

Forest Highways

During 1956 the Bureau of Public Roads awarded contracts amounting to $4.690,750 covering 67 miles of forest highway construction. Forest highways are those highways within or adjacent to national forests which are a benefit to forest development, protection, and administration, and are required for transportation of timber and minerals. The program of construction is prepared jointly by the State, Forest Service and Bureau of Public Roads.

Roads and Trails

Road and trail maintenance during calendar year 1956 was unusually heavy because of flood damage incurred in the December, 1955 floods. Restoration work (included in road and trail maintenance below) amounted to $589,000.

Accomplishments on the transportation system for 1956 were as follows:

Work Done with Federal Funds:

New bridges	23		$ 785,095
Temporary bridges replaced with bridges	21		586,018
" " " " culverts	42		93,070
Timber access roads, new	79.9	mi.	1,873,638
" " " , reconstructed	39.1	mi.	432,032
Other roads constructed	2.6	mi.	21,699
" " reconstructed	20.7	mi.	142,796

Work Done through Timber Sale Contracts:

Engineering on timber access roads			363,960
Bridge construction	11		191,082
Timber access roads, new	869.0	mi.	14,819,994
Timber access roads, reconstruction	251.5	mi.	2,926,399
Road maintenance	6,114.4	mi.	1,727,575

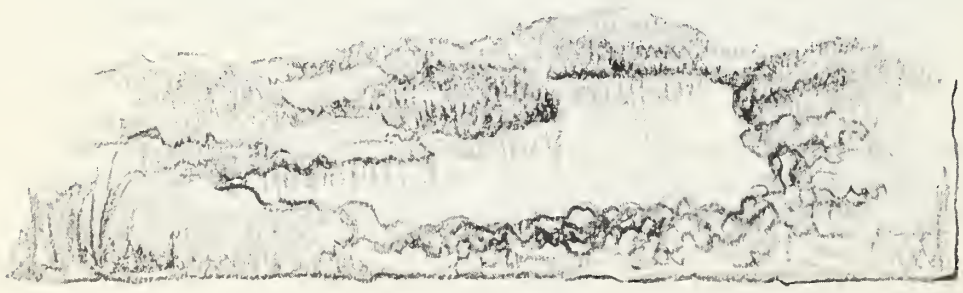
Other Accomplishments with Government Funds:

Survey and plans	574	mi.	1,075,305
Construction staking and inspection purchaser roads	762.2	mi.	383,889
Trail construction	111.6	mi.	165,155
Roads maintained	12,331	mi.	1,337,227
Trails maintained	20,751	mi.	370,610

Equipment Fleet Management

The region continued to meet peak summer transportation needs by using older vehicles and renting a few from other agencies. Because of expanding work loads, 40 vehicles were added to the fleet through transfer of excess vehicles from the Bonneville Power Administration. The region conducted its first formal training session for the lead mechanics in charge of shops. The training lasted a week and covered procedures of shop management, repairs, and cost accounting.

Reservoir Construction



The Forest Service has nothing directly to do with water impoundments. It is vitally concerned, however, with the impacts that such projects have on other land uses.

Activity on major waterpower cases continued at a high level during the year. Construction work is continuing on the Skagit River and Baker Lake projects on the Mt. Baker Forest, and Swift Creek No. 1 on Gifford Pinchot. Construction is either starting or well under way on Swift Creek No. 2, Gifford Pinchot, and North Fork Clackamas, Mt. Hood.

Applications for waterpower permits were made for Sultan River, Snoqualmie Forest and South Fork Skokomish River on the Olympic, but no further action has taken place. Included among those in the application, reporting or preliminary stage are the Middle Snake River, Eagle Cliff, Meadow Creek, Little White Salmon River and Eden Ridge.

Cartography

Good progress has been made during the year on modernizing the maps which are vital to the conduct of national forest business. The maps are also of benefit to other Federal agencies, the states, forest industries, timber sale operators, and others. Mapping programs are coordinated to avoid duplicating the work of others.

Since 1947, planimetric mapping of approximately 59,000 sq. mi., on a scale of 2 inches to the mile, has been completed. Work on an additional 3,000 sq. mi is under way and should be finished by July 1, 1957. Approximately 14,000 sq. mi. remain to be done. This includes work being done by the Geological Survey, which the Forest Service will use.

New base maps of three national forests, on a scale of $\frac{1}{2}$ inch to the mile, were completed and three more are in progress and will be finished by July 1, 1957.

Aerial photographs and photogrammetric methods are used in map making. During the year aerial photography of 10,200 sq. mi. was contracted and is approximately 90 percent completed. Of this, approximately 3,000 sq. mi. was on a scale of 1:12,000, and the remainder on a scale of 1:15,840. Additional photography is needed of areas having obsolete or unsatisfactory photographs. This will be done as needs require and funds permit.

Recreation folder maps are revised for each forest approximately each six years. New map folders were prepared for Siskiyou, Ochoco and Wallowa-Whitman National Forests. Three others--Gifford Pinchot, Umpqua and Umatilla--are under way.

Forest Soils

Good progress has been made in obtaining the information about forest, soils, vitally needed by land managers in determining proper road locations, adequate road drainage, soil stabilization and other practices involved in multiple-use land management. The job is virtually complete for all of the forests in Washington. In Oregon, field work is completed on Willamette National Forest and is under way on others. Other agencies also taking part in phases of the program are the Soil Conservation Service and Oregon State College.

Recreation

Again, recreation use has increased. Over 5 million visits were made to recreation areas last year. Among individual recreation pursuits, the greatest increase during 1956 was in winter sports. Visits numbered approximately 720,400--a 9 percent increase over the previous year.

Major developments at winter sports areas this past year were:

Item	Location	Forest
Ski lodge	Panorama Dome	Mt. Baker
Several rope tows; double chair lift	White Pass	Snoqualmie
Pomalift and ski lodge	Snoqualmie Pass	Snoqualmie
Ski lodge; 2 rope tows; Pomalift	Tomahawk near Klamath Falls	Rogue River
New ski jump	Spout Springs	Umatilla
Reconstruction famous Leavenworth ski jump *	Leavenworth	Wenatchee

* Note: Collapsed last winter under abnormal snowfall.

Additional funds enabled some progress in replacing and adding to campground sanitation and other basic facilities this year. A stepped-up program of rehabilitation and new development is planned to meet the needs of the increasing number of recreational users.

Land Management Planning

Ever increasing demands upon the national forests to furnish timber, forage, recreation, water, and other products has brought into focus conflicts among the various uses. A larger program of land management planning was started this past year. It consists of gathering pertinent resource data, patterns of use, and other important related information. Following an analysis of this factual data, conflicts in use are carefully weighed. The preference use or uses to which the areas will be dedicated will be those best designed to satisfy long-term public needs for all of the resources of the national forests. This type of land management planning was started on at least one ranger district on each forest.

Wilderness and Wild Areas

A land management analysis and plan for Glacier Peak Area was made during the year. This plan including a proposal for a new wilderness area will shortly be discussed with all interested parties before final recommendations are made to the Chief of the Forest Service.

Land Exchange

Exchange of lands between the Bureau of Land Management and the Forest Service, as provided by Public Law 426 - 83rd Congress, has been completed. Approximately 241,000 acres of national forest lands have been transferred to the Bureau of Land Management and given O&C status, while approximately 243,000 acres of O&C lands have been given national forest status. The values of both properties were approximately equal.

Following completion of the exchange, a study was made of needed boundary adjustments of six national forests involved. The Region's recommendations as a result of this study will be forwarded to Washington early in 1957.

Small Watershed Projects and General Basin Investigations

Forest Service participation on Small Watershed Projects, under Public Law 566, continued during 1956. Preliminary field examinations were made on three watersheds in Washington and five in Oregon. Feasibility studies were made on one watershed in Oregon and one in Washington. Forest land programs were developed for one watershed in each state.

On Mission Creek Watershed Protection Demonstration Project, Wenatchee National Forest completed 1-1/2 miles of channel clearing and bank stabilization, 4 miles of new trail construction in Devil's Gulch, and about 150 acres of roadside erosion control and critical erosion-source-area seeding and planting. The new trail proved its utility in August in providing rapid access to a lightning fire.

At the request of the Corps of Engineers the Forest Service made a study of the impacts on forest resources and resource management of eight of the flood control projects included in the Columbia Basin 308 Review.

Mineral Resources

About 206 mining claims, covering 5,150 acres, were examined in connection with patent applications or to determine validity. Twenty-four were clearlisted for patent and 182 were protested by the Forest Service. The Bureau of Land Management conducted eight hearings for eight of the protested claims.

Thirteen forests participated in an examination of 24 areas, embracing approximately 1,200,000 acres of national forest lands, for determination of surface rights under the provisions of the Act of July 23, 1955:

Forest	Approximate Acreage
Snoqualmie	508,000
Whitman	200,000
Mt. Baker	92,000
Siskiyou	75,000
Willamette	68,000
Wenatchee	62,000
Deschutes	45,000
Fremont, Ochoco, Okanogan, Olympic Rogue River, Umatilla	150,000

Four areas have had publication of notices to mining claimants that the Forest Service is making a determination of surface rights. The areas are: North Fork Snoqualmie River, Skykomish and Mineral Areas, Snoqualmie and Quartzville Area on the Willamette. The 150-day period for filing verified statements has expired on only one area--the North Fork Snoqualmie. Fourteen statements covering 127 claims were filed with the Land Office at Spokane. Twenty-five of these claims have been examined by Forest Service mineral examiners. As yet, no hearing has been held to determine the effectiveness of the asserted surface rights.

As of December 31, 21 verified statements covering 125 unpatented mining claims have been filed with the Land Office at Spokane for the Skykomish Area. None of these claims have been examined by the Mineral Examiners. The 150-day period for filing verified statements expires on the days indicated for the remaining three areas: Skykomish-February 1, 1957; Quartzville-April 1, 1957; and, Mineral-June 10, 1957.

Eight other cases are in the Land Office, Portland, being processed for publication of notice to mining claimants. Six cases are in the office of the Chief of the Forest Service being processed. Six others are being worked on at the forest level.

RANGE AND WILDLIFE MANAGEMENT

A good start was made during the year on a number of pressing problems in range and wildlife management. We are hopeful of being able to increase and accelerate certain phases of the work.

Range Management

Actual livestock numbers grazed on the forests of the Pacific Northwest Region in 1956 were:

Cattle	89,069
Sheep	150,153

This represents a decrease of 397 head of cattle and 14,808 sheep from 1955 figures.

Grazing receipts amounted to $216,838.75 as compared with $224,159 for 1955. Lower market prices to livestock growers in 1955 caused a slight decrease in grazing fees in 1956.

Based on preliminary reports, over 4,000 acres of depleted forest range were revegetated. Revegetation practices included:

1. Spraying brush to release desirable forage.
2. Water spreading.
3. Mulching and grass seeding of scab ridges.
4. Seed bed preparation by cultivation and the reseeding of forage grasses.

In addition, about 4,500 acres of accidental burns and 10,000 acres of logging-disturbed areas were seeded to grass as erosion-control measures. An estimated 300,000 acres of depleted range needs to be reseeded.

Noxious weed-control work was performed on five forests. Only high priority projects could be undertaken. Weeds worked on were: Tansy ragwort, Canadian thistle, Napathistle and water hemlock.

Range Allotment Analysis

Increased funds to this region for this essential work have resulted in the employment of nine additional men who are spending all or a major part of their time analyzing range condition and forage production for the preparation of modern management plans. More than 900,000 acres have been covered since July. More will be done before the end of the fiscal year. Analyses of ranges used by domestic livestock will be completed in six or seven years.

Watershed Management

Coffee Pot Flat Project

Since our last report, we have continued to improve and expand the Coffee Pot Flat waterspreading project on the Fremont Forest. Dikes have been strengthened, gully rehabilitation started and the vegetative cover more carefully managed. This project differs somewhat from earlier attempts to stabilize soil and restore the vegetative cover in that more care is directed toward water control, particularly when it falls, rather than after it cuts and enters stream channels.

Sand Dune Stabilization

We have initiated, this year, stabilization of moving sand dunes on the coastal area of the Siuslaw Forest. Some 20 years ago experimental work indicated that shifting sand dunes may be effectively controlled by planting of dune grass, legumes and trees, in succession. Several thousand acres of dunes are in need of stabilization on the forest. In solving the sand dune problem this year's program is only a start.

Funk Mountain Project

Fencing, grass seeding and tree planting were accomplished on Funk Mountain (Okanogan Forest) which is within South Okanogan Soil Conservation Pilot District. The rehabilitation was accomplished in conformity with an overall land and resource management plan for the Pilot Soil Conservation District.

Anthony Ridge Project

Soil stabilization and rehabilitation (by mechanical means) and grass planting were started on Anthony Ridge in Elk Horn Mountains west of Baker, Oregon. The method used consists of contour trenches followed by seeding of suitable grass. Livestock were removed from the area a number of years ago; however, soil movement which resulted from misuse of the vegetative cover was not appreciably stopped merely by the removal of livestock. It was necessary to control overland waterflow by constructing the contour ditches

which were, in effect, miniature waterstorage reservoirs. Once the soil is stabilized, vegetative cover may be restored. This year 200 acres were treated. It is estimated that in this region over 100,000 acres are in need of similar treatment.

Management of Municipal Watersheds

Careful harvesting of timber from Marys Peak and Big Quilcene watersheds, which supply domestic water to Corvallis, Oregon and Port Townsend, Washington, respectively, is being continued on a sustained yield basis without detriment to the water supplies for these municipalities.

Wildlife Management

The 1956 harvest of big game from national forest land in Oregon and Washington is expected to be slightly down from the 1955 record kill of 81,000 deer and 7,200 elk. Severe winter losses of deer in some parts of Washington a year ago and a leveling off of the deer herds in Oregon contributed to a slightly reduced harvest. Game ranges comprise a greater area than livestock ranges. Efforts are being directed toward increasing or improving game range areas through range improvement activities and through its coordination with management of other resources designed to improve game habitat. A number of localities continue to show effects of excessive game use of browse plants and tree reproduction. A study just initiated on the Olympic Forest, with State Game Department and Forest Service research personnel participating, will more accurately assess elk damage to new tree plantations.

The livestock range allotment analysis program has been expanded to include pertinent information on big game ranges, such as herd unit boundaries, critical range areas, abundance and condition of browse forage and areas suitable for game rehabilitation. All forests in the region now have completed, or nearly completed, limited wildlife plans designed to aid field men in properly administering game habitat.

STATE AND PRIVATE FORESTRY

The Forest Service has responsibility of cooperating with state, private and other public agencies in promoting (1) better protection, and (2) better management of forest lands. Basis of the protection activities is that provided under the Clarke-McNary Law. Work in management improvement has to do with farm forestry, the Agricultural Conservation Program, the Soil Bank, tree planting and general forestry assistance, under a number of "Acts of Congress".

Cooperative Forest Protection

A study was begun in 1955 with state officials to determine the cost of providing a basic level of protection for all state and private forest lands. This study was continued and completed in 1956. It reveals that the cost of protection has increased approximately 30 percent since the previous estimate was made in 1950. These cooperative cost studies are made at approximately five-year intervals.

Federal funds are allotted to the states under the cooperative Clarke-McNary protection program. Timber values and the annual value of forest products from non-federal lands, protected under the program, are estimated to be over 13 billion dollars. Approximately 24 million acres of state, private and other non-federal forest land are protected by Oregon and Washington state forestry organizations. Federal funds allotted for fiscal year 1957 were: $591,416 for Oregon and $558,538 for Washington. This is approximately 25 percent of the total funds spent by the two states for the protection of these valuable state and private forest lands.

We are currently working with the states in the development of more adequate state rural fire defense plans. Existing plans for protecting forest lands from fire in the event of enemy attack, have been broadened to include all rural areas. State-wide committees consisting of all protection agencies have been organized.

Farm Forestry

All farm forestry projects in the region are under the direct supervision of the State Foresters. A total of $79,282 is budgeted for cooperative forest management in the two states. Of this amount, $24,677 - 31 percent - is made available through federal allotment. The federal funds made available for fiscal year 1957 were $11,012 for Oregon, and $13,665 for Washington. This helps to provide for twelve farm foresters in the two states.

Two additional farm forestry projects have been started in the State of Washington during the year, bringing the number of projects up to a total of eight. There are a total of four farm forestry projects in Oregon. Technical advice on proper management of forest lands is provided the small landowner under this program in twelve counties in Oregon and fourteen counties in Washington.

Agricultural Conservation Program

The intent of the Agricultural Conservation Program is to encourage the development of sound conservation practices on non-federal lands. The program was jointly developed by the Forest Service, Soil Conservation Service and State Agricultural Stabilization and Conservation offices. Technical forestry information and guidance has been provided to the greatly expanded forestry activity. A Forest Service representative meets with each county ASC Committee at least twice each year, to advise and assist on forestry practices.

Soil Bank Program

The Forest Service has responsibilities under the "Conservation Reserve" portion of the Soil Bank. We are working closely with the two State Foresters to increase forest-tree-nursery capacity for "Conservation Reserve" tree planting. Each of the two states is building a new nursery capable of producing 15,000,000 trees annually. For this purpose $482,467 of federal money has been made available to the State Foresters. The State of Washington has hired two planting technicians and plans to hire more to develop landowner interest in conservation reserve tree planting, and to provide technical assistance. The State of Oregon is planning to do likewise.

Cooperative Tree Planting

The Forest Service provides financial and technical assistance to State Foresters in growth and distribution of about 7,000,000 tree seedlings. This is in addition to production of trees for Soil Bank use and comes under the Clarke-McNary (C-M 4) Program. State nurseries are being enlarged to make twice this number of seedlings available to land owners. Total budget for this nursery production amounts to $103,685. The federal share of this amount is $19,917.

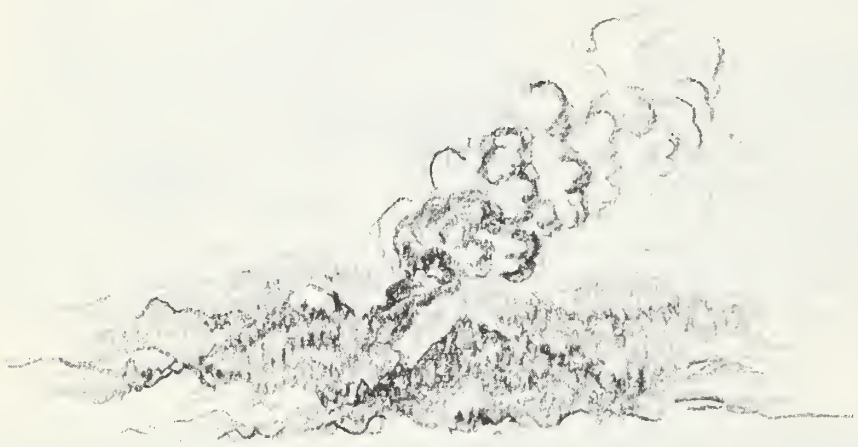
General Forestry Assistance

More commonly used Timber Resource Review statistics for Oregon and Washington were assembled in booklet form as a service to conservationists.

As a service to the small forest land owner, a pamphlet entitled "Timber Sale Agreement Guides for the Woodland Manager" was prepared. The pamphlet encourages use of written agreements with provisions which (1) are fair to both purchaser and land owner, and (2) encourages the acceptance of good forestry practices.

We assisted forestry committees in Clark County Washington and Columbia County Oregon in sponsoring "Conservation Days" for seventh grade school children. The program involved classroom study, a one-day tour to observe what they had studied, and a quiz or prepared paper following the tour. Some 2,200 school children from the two counties took part.

FIRE CONTROL



We have made progress during the year on a number of fire control problems. The drive to prevent man-caused fires has continued. We have sought more efficient methods to control wild fires. Safer and better methods of using fire as a management tool have been given considerable attention. Special efforts were given to reducing industrial fires through better inspection on industrial equipment and operation, developing more thorough preparations for slash burning and safer, more efficient methods of setting slash fires.

Much attention has been given to preventing other man-caused fires, particularly those set by hunters in Oregon and Washington. The number of hunters in the two states has increased until more than half a million now flock to the hunting areas each year. Fire prevention has been urged through the cooperative forest fire prevention campaign (Smokey Bear), state foresters, and the Keep Green associations. The Forest Service cooperated with other protection agencies in Oregon in securing coordinated publicity just before deer hunting season. Combined publicity was issued by the State Governor's Red Hat Days' Committee and was the result of joint efforts of the Forest Service, State Forester, Keep Oregon Green Association, Bureau of Land Management, Oregon Game Commission, the Governor's Red Hat Days Committee, West Coast Lumbermen's Assn., and the Weather Bureau. It is believed that results were good, even though the number of hunter fires increased. Increase was due in large part to the dry fall and an earlier opening date of deer season in Oregon. Fires attributed to hunters constitute a problem of greater proportions in Oregon than in Washington.

Forest fires in 1956 were near the all-time high in numbers; acreage burned was near the all-time low.

	1956	1955	1951-1955 Average
No. of fires	1,803	1,013	1,059
Acreage burned	1,729	16,231	16,357

Lightning fires totaled 1,396 and man-caused fires 407. Hunter fires were up this year to 115, from 72 last year. Most of these were in Oregon.

Slash Burning

Even under the best conditions, necessary burning of logging and road-building debris or slash, is a hazardous operation. Reports indicate that slash burned was 30 to 40 percent less than that planned. Delayed precipitation followed by heavy and continuous rain in October, particularly in the southern Cascades, was the main deterrent. Efforts have been continued to lengthen the period during which slash may be burned, through concentrating it by piling, machine bunching, and by covering piles with heavy paper.

Aerial Program

Numerous lightning fires in remote areas of the northern Cascades and Siskiyou Mountains caused our use of smokejumpers, airplanes and helicopters to soar to an all-time high. The 482 jumps--to 149 fires--are the most on record. They contributed significantly to the low burned acreage. Helicopters were used on a number of fires to transport supplies and equipment and for detection and observation. As a result of this year's experience we plan to make greater use of aerial facilities to transport personnel, supplies and equipment to the remote fires. Possible use of airplanes for dropping water or chemicals on fires, to put them out or to prevent their spread until ground forces arrive, is being considered.

No fatalities or serious injuries were experienced in connection with our aerial program during the year.

New Equipment and Improvements

We continued modernization of our equipment and improvements. We purchased 176 radios, 29 tank trucks, and ten new lookout houses, three of which were installed. Eight of these were of the new all-metal type. We continued developing and testing new equipment, including power driven fireline trenchers, motorized trail packers for moving equipment on trails, and several other items.

Cooperation

Splendid cooperation from industry, the state organizations, private protective associations and other regions of the Forest Service and individuals was an important factor in attaining the low acreage burned.

Weather

The entire fire season of 1956 was about average. The fall season was somewhat more severe than normal. November produced an unusual period of high velocity east winds and low humidities. We participated in a research project directed toward producing better localized weather forecasts.

OPERATION

Housing

Inadequate housing has been reported previously as a major problem region-wide. This is still the case. It is particularly important that adequate housing be provided for timber sale and other personnel if we are to reach our allowable cut in a plan-wise manner and successfully handle the other phases of forest management. Due to a special appropriation to provide housing for timber sale personnel, a total of twenty-four three bedroom dwellings were constructed, or contracted for construction, during 1956. In addition, five dual-headquarters office buildings were constructed. Five crew houses, one mess hall, and one guard station dwelling were approved for construction from other funds. The mess hall was completed during the year. The 1955 intensive survey of housing needs on each ranger district revealed that at least $7,000,000 would be needed for remedying deficiencies in residences, ranger office space, small storage and warehouse buildings and other utilities. The increase we were able to make in new housing this year is encouraging, but it is only the beginning.

Ranger District Work Loads

Work performance on ranger districts is the key to good on-the-ground resource management. A ranger's work load should be such that he can adequately plan, direct, supervise and participate in managing the resources. Work load studies revealed an overload on a number of districts in the region. In four instances a practical subdivision was possible. Four new ranger districts were activated: Hoodsport on the Olympic; Blue River on the Willamette; Willard on the Gifford Pinchot; and Metolious on the Deschutes. Work load analysis is a continuing study. Several more district subdivisions are under consideration. Organizational studies have been made on several forests, with the objective of securing a higher proportion of time of project staff specialists in performance of needed field work on ranger districts. Increased work loads are making it possible to assign these specialists to locations in the field where they can service one or more ranger districts more effectively.

Communication

Efficiency and economy of communication is under recurring review. In 1956 approximately 200 miles of telephone line were eliminated from our communications system. In part, this was made possible by expansion of commercial telephone facilities--the remainder by installation of less costly VHF radio networks. To our communications system 177 VHF radios were added. This number includes two radio relay stations that will greatly expand coverage in the La Grande and Pomeroy area. It is expected that improved coverage there will allow further reductions in forest telephone line mileage.

General Operation

A new procedure was developed for auction sales of used vehicles and heavy equipment. This method encouraged top bidding by private parties as well as by dealers and has successfully reduced our used equipment sales-administration costs. The method is being used by other federal, state and city agencies. Negotiations were completed with Federal Prison Industries for furnishing painted signs. A sign painting shop at McNeil Island will supply all types of wooden signs for the Forest Service in accordance with regional sign specifications.

A total of 179 employee work improvement suggestions were received in 1956, of which 84 have been approved and 81 disapproved. Cash awards were made for 35 suggestions. Nine other awards were made for outstanding performance. Total amount paid under both phases of the awards program amounted to $3,115.

The region disposed of 365 cubic feet of record material and sent 162 cubic feet to Federal Records Centers in Seattle, Portland and St. Louis. An intensified program is planned to cover need for creation of records as well as of their disposal.

We have continued to work with the Department and Civil Defense authorities in coordinating our work with Civil Defense activities.

PERSONNEL MANAGEMENT

Manpower Needs, Recruitment and Training

More than 90 professional foresters were hired in 1956, but this number fell about 70 short of filling vacant positions reported by our Forest Supervisors. Currently this Region (Oregon and Washington) employs approximately 650 graduate professional foresters. Losses by resignation and other causes were 24 men.

In October, minimum salaries for new professional foresters were increased from $3670 to $4210 per annum for those in grade GS-5 (our starting salary) and from $4525 to $4930 per annum for the next higher grade.

Acute shortages of personnel exist in many other functions of work. Chief among these are engineers, business management or accounting technicians and log scalers.

Late in the year recruiters visited forestry schools in the East, Middle West and Pacific Coast States to inform students of job opportunities. Plans are under way to repeat these contacts in late winter or early spring. It is hoped that the changes in minimum salaries will encourage more qualified people to join our organization.

Maximum utilization of our human resources demand that our personnel be well trained in the tasks assigned to them. Numerous personnel training sessions were held during the year. In addition to the annual fire guard training camps held on each forest, foremanship courses, road location,

bridge design and many other subjects have been taught in "on-the-ground" classes. Another important activity in training is that of putting on field demonstrations to release new information, illustrate cheaper methods and more satisfactory ways of doing things.

Safety

Again, at all levels of administration continued emphasis has been placed on accident prevention. The accident frequency rate (number of disabling injuries times 1 million, divided by number of man hours worked) was 9.95. This takes into account 54 cases of lost time from personal injuries. Severity rate (number of man days of lost time times 1 million, divided by number man hours worked) was 200. The Forest Service is actively cooperating with the National Safety Council's program - BACKING THE ATTACK AGAINST ACCIDENTS - during 1957.

INFORMATION AND EDUCATION

We continued our active participation in workshops covering "Conservation and Outdoor Education" for teachers in both States.

The Oregon workshop was held for the second year at Hoodoo Ski Bowl, Santiam summit. Washington's was held at Rustic Inn near Cle Elum for the fourth consecutive year. Both workshops provided a week of conservation instruction for each of two groups of teachers. Total attendance was 174 teachers.

In addition to the camps at Hoodoo and Rustic Inn, several other colleges in the two States included study of conservation in their summer school programs. Individual forests, with some assistance from our regional office, helped on these courses.

We cooperated with National Geographic on the Northwest portion of the beautifully illustrated article OUR GREEN TREASURY, THE NATIONAL FORESTS. It appeared in the September issue. We have assisted other writers with material requested for articles about conservation and national forests.

During the year revisions have been made of our directories of national forest camps in Oregon and Washington, the regional ski guide, and three recreation folders.

To obtain a better and more widespread understanding of national forest programs, problems and the status of multiple-use land management, we have continued our work with organizations and individuals and the distribution of published materials. One of the most important items has been our effort to obtain wide distribution of the Timber Resource Review.

STATEMENT OF INCOME AND EXPENDITURES
FOR OPERATION OF NATIONAL FORESTS IN
REGION 6
F. Y. 1956

Income:			
Collections - Forest Reserve Fund		$ 54,635,641	
" - Warm Springs Indian Lands		273,258	
" - National Forest - O&C		2,485,782	
" - L. U. Area		9,609	$ 57,404,290
Trust & Special Funds(CWFS and Brush Disposal)			2,903,373
Congressional Appropriations			14,565,808
Value of development and maintenance work (roads, bridges, and trails) performed by timber purchasers for which allowances were made in timber sale appraisals			19,272,155
Total Income			$ 94,145,626
Operating Costs:			
Management Expense		$ 1,108,717	
Timber Use		2,880,619	
Other Resource Use		357,357	
Fire Control		2,364,455	
Maintenance of Improvements other than roads and trails		648,692	
Maintenance of roads and trails not performed under timber sale contracts		2,273,804	
Estimated road maintenance under timber sale contracts		1,363,363	
Surveys, maps, and land management		88,262	
Contributions to local government		15,523,246	
Transfer Warm Springs Indian Land Receipts to Indian Service		273,258	
Estimated depreciation on Capital Investment (except roads)		839,000	
Total Operating Costs		$ 27,720,773	
Capital Improvements:			
Housing, planting, roads, protection facilities:			
From appropriated funds	$ 7,836,208		
Road construction by timber operators	17,908,792	25,745,000	
Total Operating Costs and Capital Improvements			$ 53,465,773
Excess of income over total operating costs and capital improvements			40,679,853
Less amount of appropriations			14,565,808
Excess of income over operating costs, capital improvements and appropriations			$ 26,114,045